

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1-10. Cancelled

11. (Currently Amended) A plant nutrient reduction ~~system~~ composition comprising:  
a microbially enhanced inorganic fertilizer composition for application to a plant comprising,

a nitrogen:phosphorus: potassium (N:P:K) ratio wherein nitrogen is from 0 to about 32, phosphorus ~~is 0 from 0 to about 13~~, and potassium ~~is~~ from 0 to about 12, wherein at least one of nitrogen, ~~phosphorus~~ or potassium is at least about 2, and

at least about  $1 \times 10^5$  microorganisms per gram of fertilizer composition, said microorganisms selected from the group consisting of *Clostridium pasteurianum*, *Rhodopseudomonas capsula*, *Bacillus megaterium*, *Bacillus subtilis* and combinations thereof and said microorganisms being encapsulated in a water-soluble coating in the form of microcapsules, wherein the application to a plant of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a nonmicrobially enhanced inorganic fertilizer composition, results in comparable plant growth or yield in an equivalent time period.

12. (Currently Amended) The ~~system~~ composition of Claim 11 wherein the N:P:K ratio comprises nitrogen from about 6 to about 32, ~~phosphorus from about 4 to about 13~~, and potassium from about 3 to about 12.

13. (Currently Amended) The ~~system~~ composition of Claim 11 wherein the microorganisms are present from at least about  $1 \times 10^5$  to about  $5 \times 10^7$  microorganisms per gram of fertilizer composition.

14. (Cancelled)

15. (Currently Amended) A plant nutrient reduction ~~system~~ composition comprising:  
a microbially enhanced inorganic fertilizer composition for application to a plant comprising,

a nitrogen:phosphorus: potassium (N:P:K) ratio wherein nitrogen is from 0 to about 32, phosphorus ~~is 0 from 0 to about 13~~, and potassium ~~is~~ from 0 to about 12, wherein at least one of nitrogen, ~~phosphorus~~ or potassium is at least about 2, and  
at least about  $1 \times 10^5$  microorganisms per gram of fertilizer composition, said microorganisms being encapsulated in a water-soluble coating, wherein the application to a plant of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a nonmicrobially enhanced inorganic fertilizer composition, results in comparable levels of nitrogen, phosphorus, or potassium in the plant.

16. (Currently Amended) The ~~system~~ composition of Claim 15 wherein the N:P:K ratio comprises nitrogen from about 6 to about 32, ~~phosphorus from about 4 to about 13~~, and potassium from about 3 to about 12.

17. (Currently Amended) The ~~system~~ composition of Claim 15 wherein the microorganisms are present from at least about  $1 \times 10^5$  to about  $5 \times 10^7$  microorganisms per gram of fertilizer composition.

18. (Cancelled)

19. (Currently Amended) The ~~system~~ composition of Claim 15 wherein the application of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a nonmicrobially enhanced inorganic fertilizer

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composition further results in comparable plant growth or yield in an equivalent time period.

20. (Currently Amended) A plant nutrient reduction ~~system~~ composition comprising:  
a microbially enhanced inorganic fertilizer composition for application to a plant comprising,

a nitrogen:phosphorus: potassium (N:P:K) ratio wherein nitrogen is from 0 to about 32, phosphorus ~~is from 0 to about 13~~, and potassium from 0 to about 12, wherein at least one of nitrogen, ~~phosphorus~~ or potassium is at least about 2, and

at least about  $1 \times 10^5$  microorganisms per gram of fertilizer composition, said microorganisms being encapsulated in a water-soluble coating, wherein the application to a plant of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a nonmicrobially enhanced inorganic fertilizer composition, results in residual levels of nitrogen, phosphorus, or potassium in the soil substantially less than that which results from the application to a plant of a non-microbially enhanced fertilizer composition.

21. (Currently Amended) The ~~system~~ composition of Claim 20 wherein the N:P:K ratio comprises nitrogen from about 6 to about 32, phosphorus ~~is 0 from about 4 to about 13~~, and potassium from about 3 to about 12.

22. (Currently Amended) The ~~system~~ composition of Claim 20 wherein the microorganisms are present from at least about  $1 \times 10^5$  to about  $5 \times 10^7$  microorganisms per gram of fertilizer composition.

23. (Cancelled)

24. (Currently Amended) The ~~system~~ composition of Claim 20 wherein the application of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic

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fertilizer composition further results in comparable plant growth or yield in an equivalent time period.

25. (Currently Amended) The ~~system~~ composition of Claim 20 wherein the application of the microbially enhanced inorganic fertilizer composition in an amount at least 25% less by weight than the application to a plant of a non-microbially enhanced inorganic fertilizer composition results in comparable levels of nitrogen, phosphorus, or potassium in the plant.

26. (New) The composition of Claim 11, wherein the microorganisms are encapsulated in a water-soluble coating.

27. (New) The composition of Claim 15, wherein the microorganisms are selected from the group consisting of *clostridium pasteurianum*, *Rhodopseudomonas capsula*, *Bacillus megaterium*, *Bacillus subtilis* and combinations thereof.

28. (New) The composition of Claim 15, wherein the microorganisms encapsulated in a water soluble coating is in the form of microcapsules.

29. (New) The composition of Claim 20, wherein the microorganisms encapsulated in a water soluble coating is in the form of microcapsules.